Amendments to the Specification:

Please replace paragraph **[0005]** with the following amended paragraph:

[0005] (2) ~~during detection, whether~~ Whether or not the externally inserted memory card which stores measurement-related parameters exists or is exchanged is repeatedly checked several times by using a processor connected to the externally inserted memory card, thereby preventing wrong parameters from being input. The above equations and safe check need more complex and precise software and hardware to operate. Consequently, the cost for achieving this object must not be greatly reduced.

Please replace paragraph **[0010]** with the following amended paragraph:

[0010] An electrode of the sample cell is grounded to serve as a reference electrode, and the other electrode of the sample cell provided with a reference potential and having a signal to be amplified via an amplifier and a feed-back resistor serves as an working electrode. ~~During detection, an~~ An electrochemical reaction signal output from the working electrode is sent to the multi-functional signal analysis processor for calculating the concentration of a selected analyte.

Please replace paragraph **[0028]** with the following amended paragraph:

[0028] As shown in Figs. 2, 3 and 4, a portable multi-functional electrochemical biosensor system comprises a plurality of sample cells 7, each sample cell 7 having a reaction zone on which a substance is placed to react with a corresponding

selected analyte, and having at least two independent electrodes 9 and 10 which are not connected to each other, wherein one of the two electrodes is a reference electrode, and the other is ~~an~~ a working electrode, and when a ~~detective~~ detection reaction occurs, the electrodes output an electrochemical reaction signal; a plurality of pluggable information memories 14, corresponding to the sample cells 7, respectively, ~~during detection,~~ each pluggable information memory 14 included in a pluggable information card 6 and being able to provide parameters used for analyzing the concentration of the corresponding selected analyte; and a multi-functional signal analysis processor 1, including a microprocessor, an electrically erasable programmable read/write memory and an environmental temperature sensor (not shown), the multi-functional signal analysis processor 1 having at least two input terminals which are connected to the sample cell 7 and the pluggable information memory 14, respectively, the microprocessor transferring the parameters from the pluggable information memory 14 to the electrically erasable programmable read/write memory so that the concentration of the selected analyte is calculated by using the electrochemical reaction signal output from the sample cell 7 and the parameters provided by the electrically erasable programmable read/write memory, as well as a temperature compensation established by the environmental temperature sensor~~, when an electrochemical reaction occurs,~~ and a status detector 17, having two independent electrodes which are connected to a resistor 19 with a constant resistance, and the sample cell which is connected to the multi-functional signal analysis processor 1, and whether the status of the multi-functional signal analysis processor is normal is based on whether the resistance of the resistor detected by the multi-

functional signal analysis processor conforms to the built-in resistance of the processor. The biosensor system uses a set of sample cell 7 and pluggable information memory 14 to detect the concentration of a corresponding selected analyte each time, so that the concentrations for various selected analytes can be detected.